

Towards Evidence-based Policy in Africa: ICT Access and Usage in 17 African countries.

Alison Gillwald

Research ICT Africa@The Edge Institute

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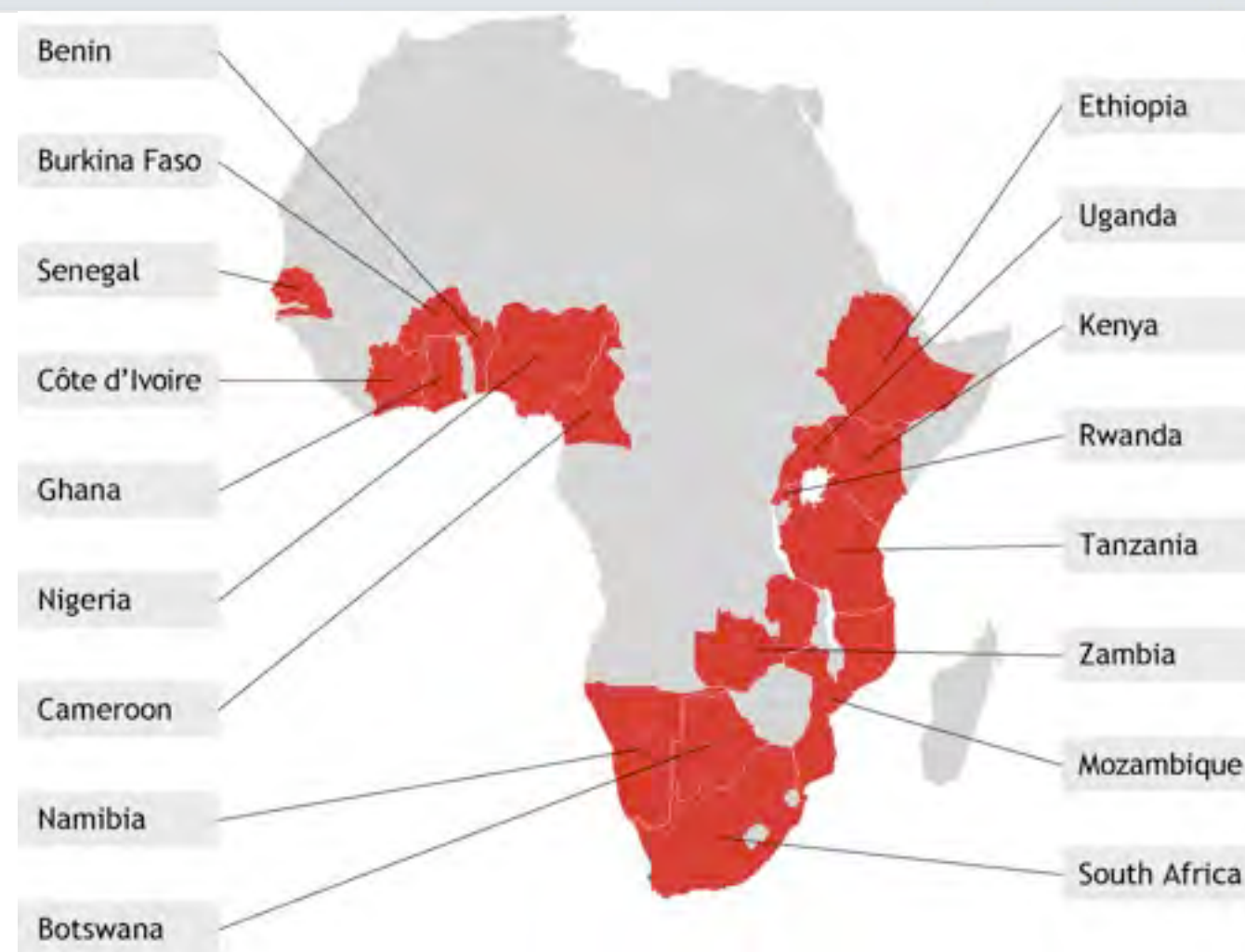
Research ICT Africa

- Network of researchers conducting ICT policy and regulatory research in 20 African countries across the continent in the absence of data and analysis required for evidence based policy





Research ICT Africa





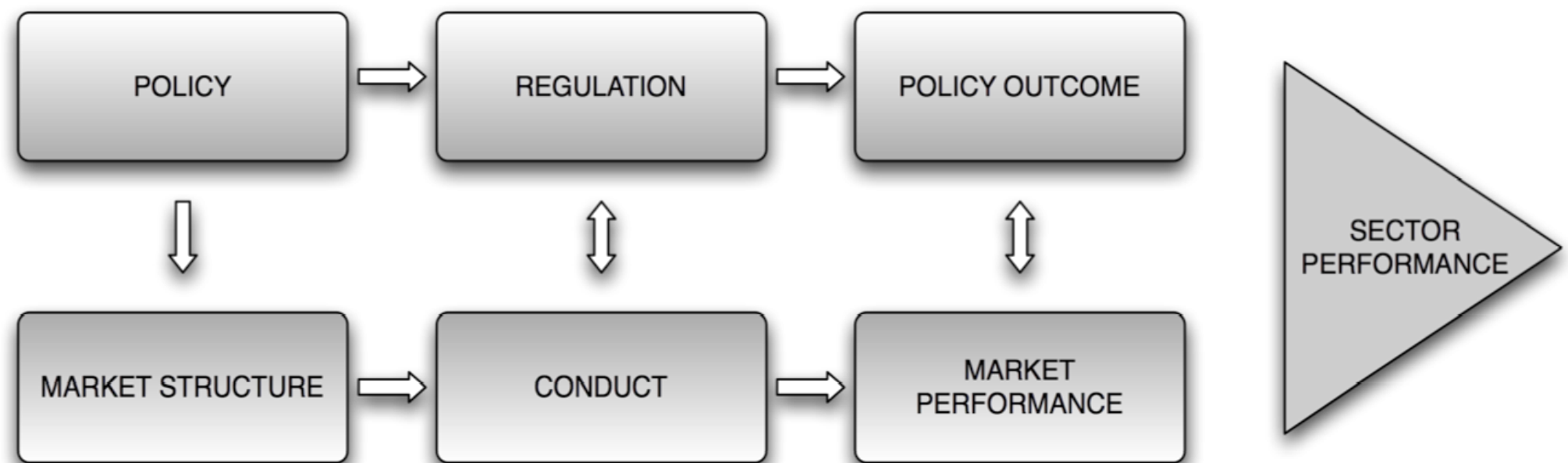
Towards Evidence based policy

- Policy research based on series of supply and demand side research undertaken by 20 country African research network which is triangulated with a telecommunications regulatory environment survey
- Integrate into an index of indicators that will provide decision-makers with an understanding of policy performance and identify points of intervention



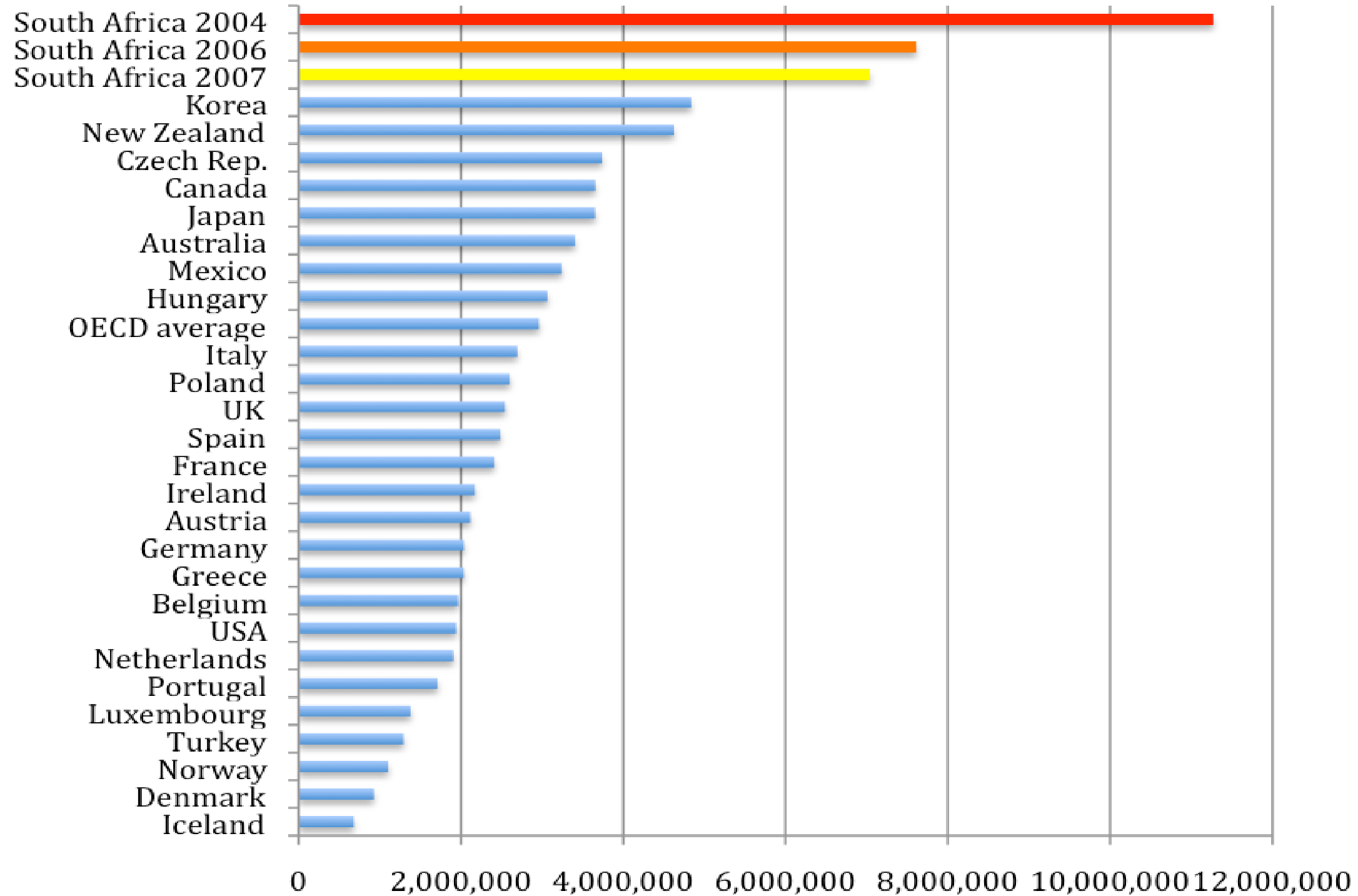


Linkages between reform elements



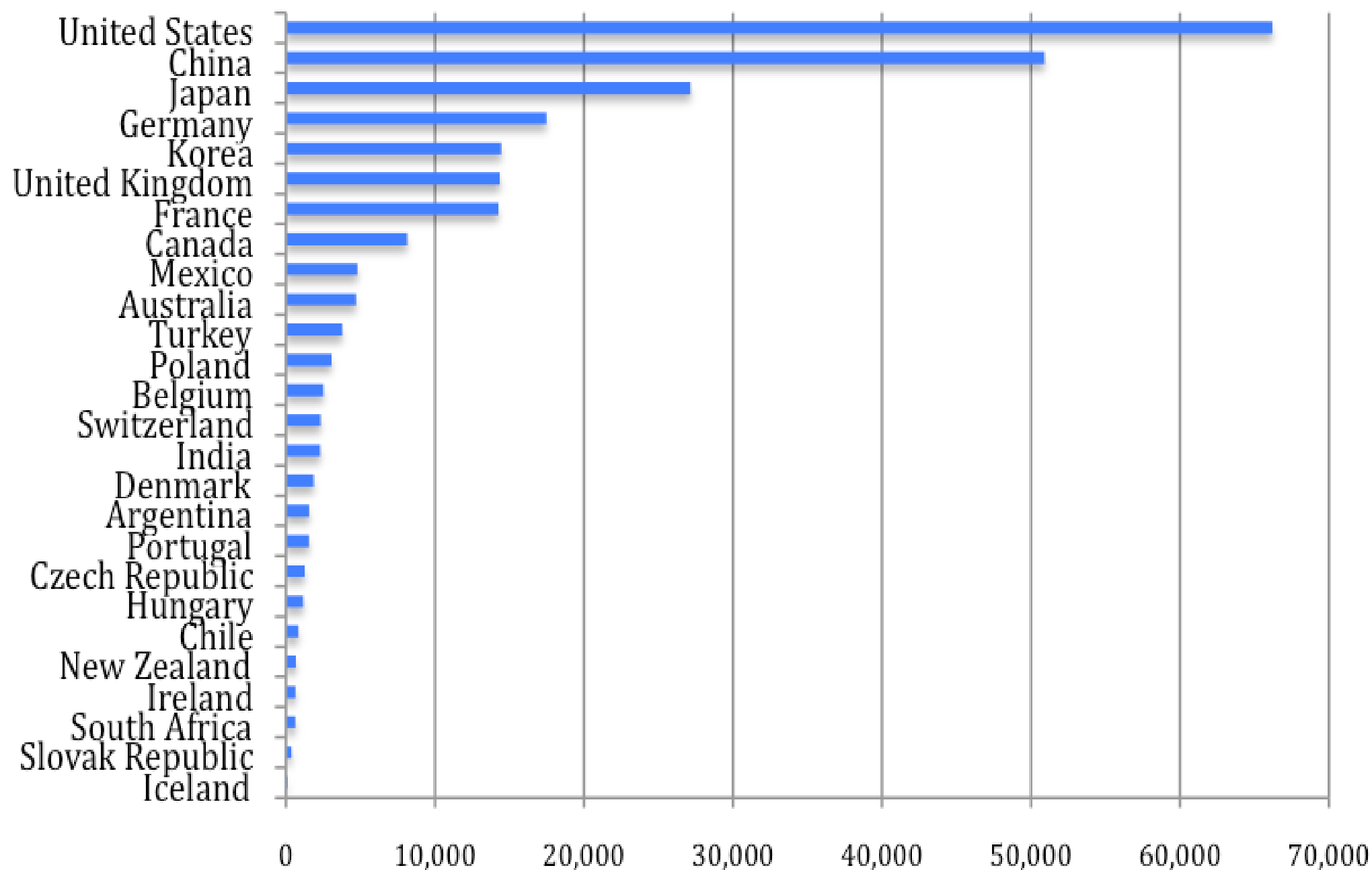


OECD leased lines comparison



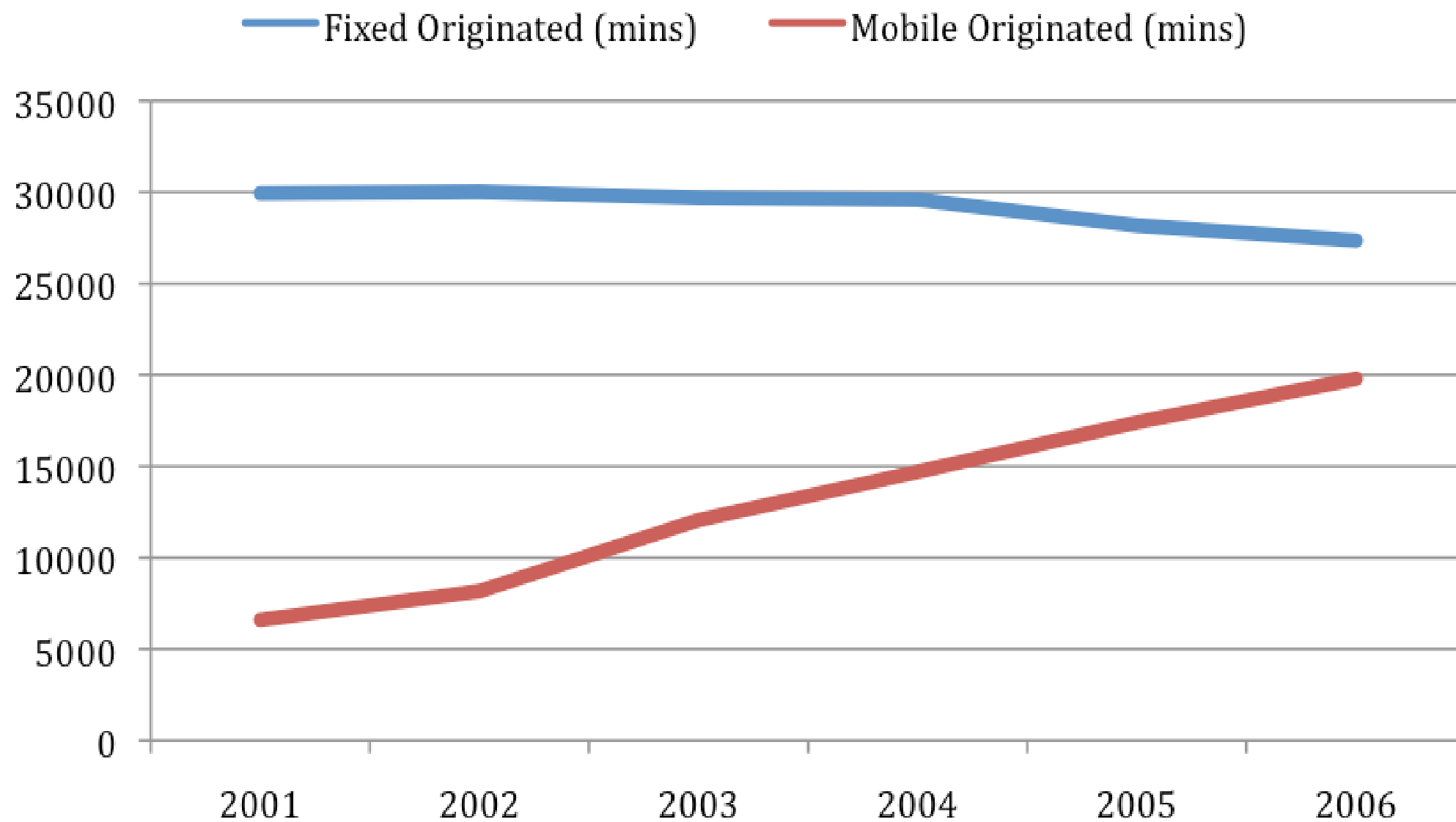


OECD Broadband Subscribers 2007 (thousands)





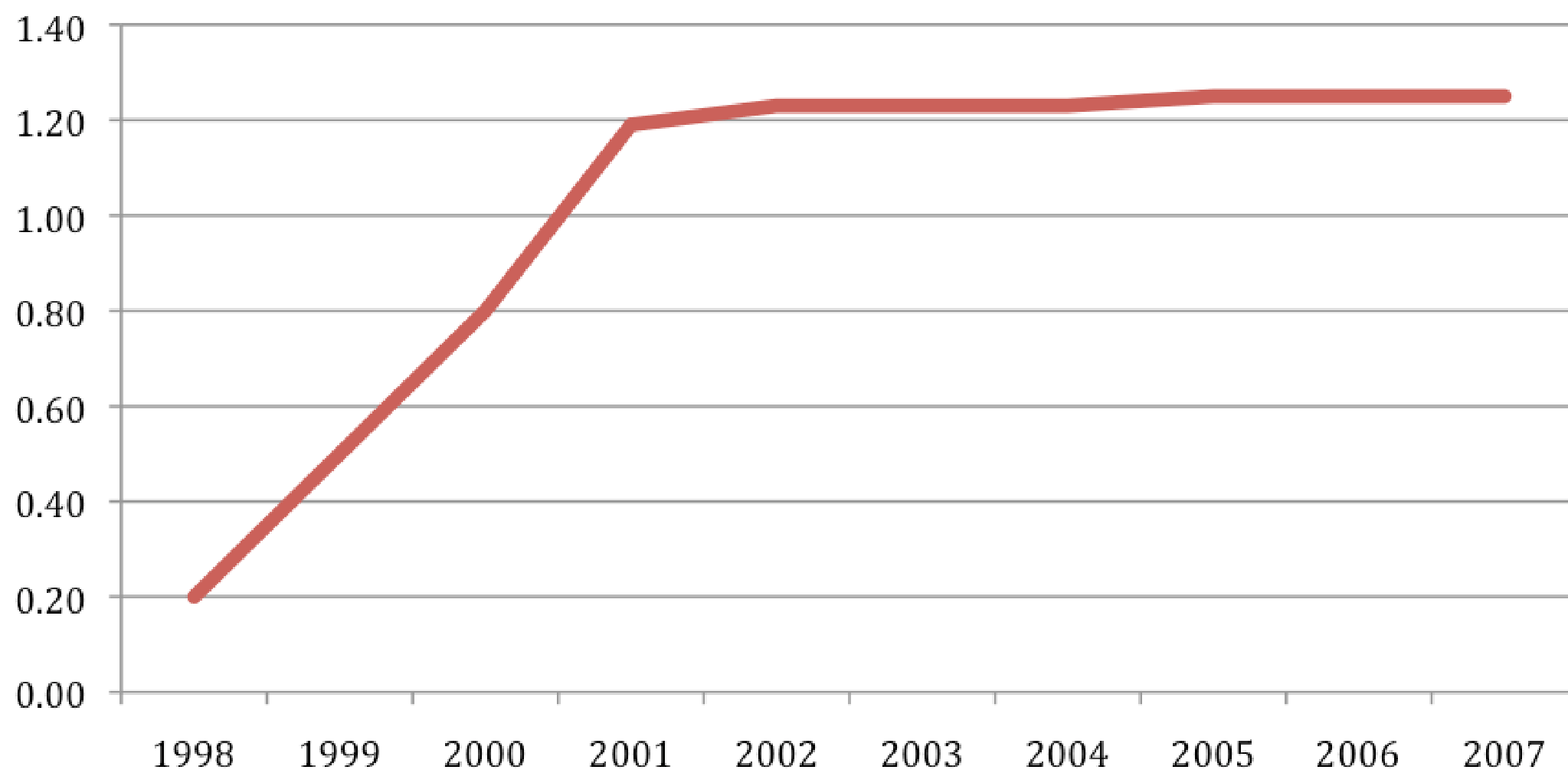
Mobile and fixed line traffic (mins)





Interconnection rates

— Mobile to mobile



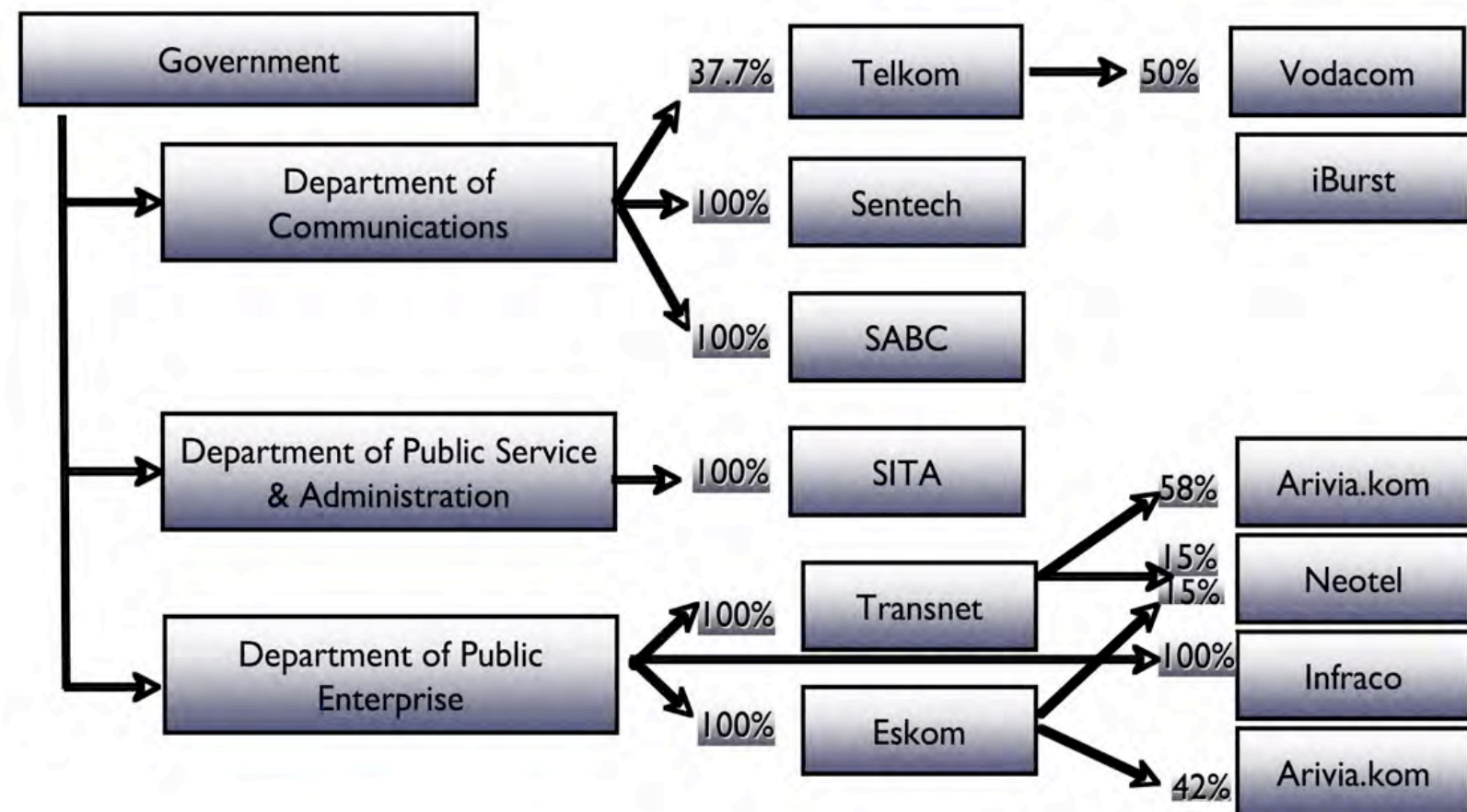


Termination charges

2008	Mobile to Mobile (US\$)	Mobile to Fixed (US\$)	Fixed to Mobile US\$
Botswana	11c		
Kenya	5.27c	2c	5.27c
South Africa	12c	3.5c	12c
Tanzania	7.83c	7.83c	7.83c
Uganda	9c	9c	9c

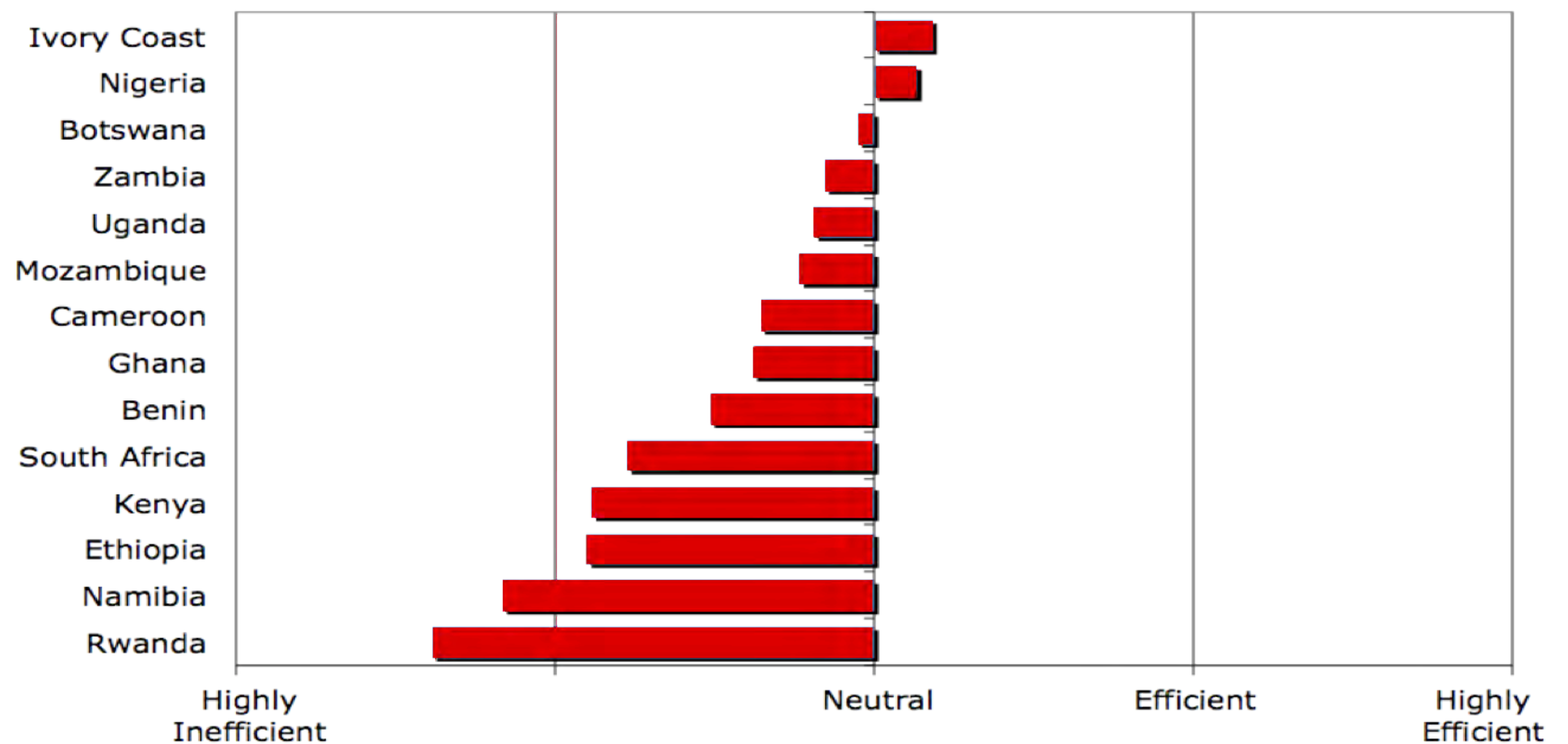


State ownership



Telecommunications regulatory environment

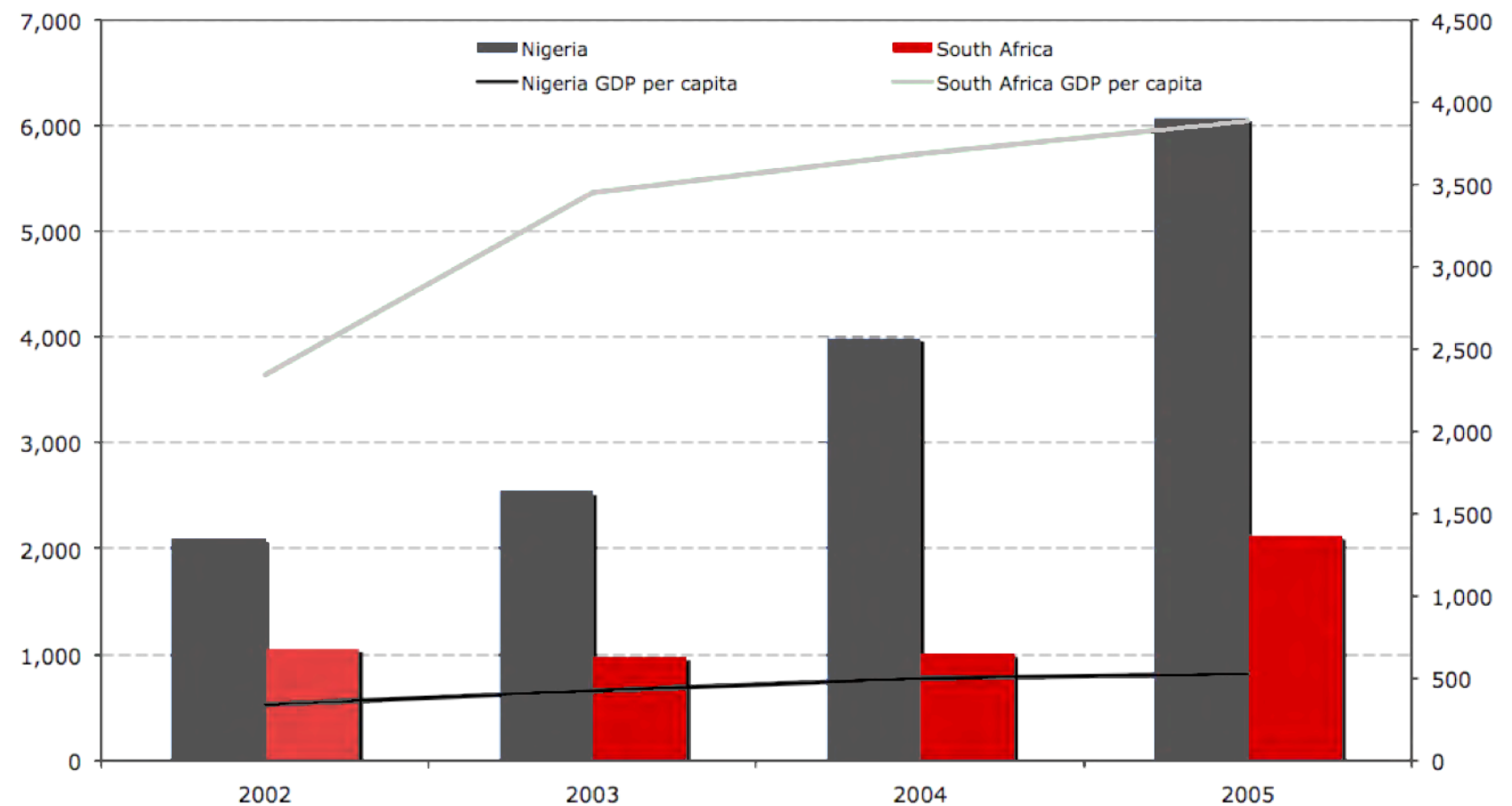
TRE Scores: Average scores across all categories



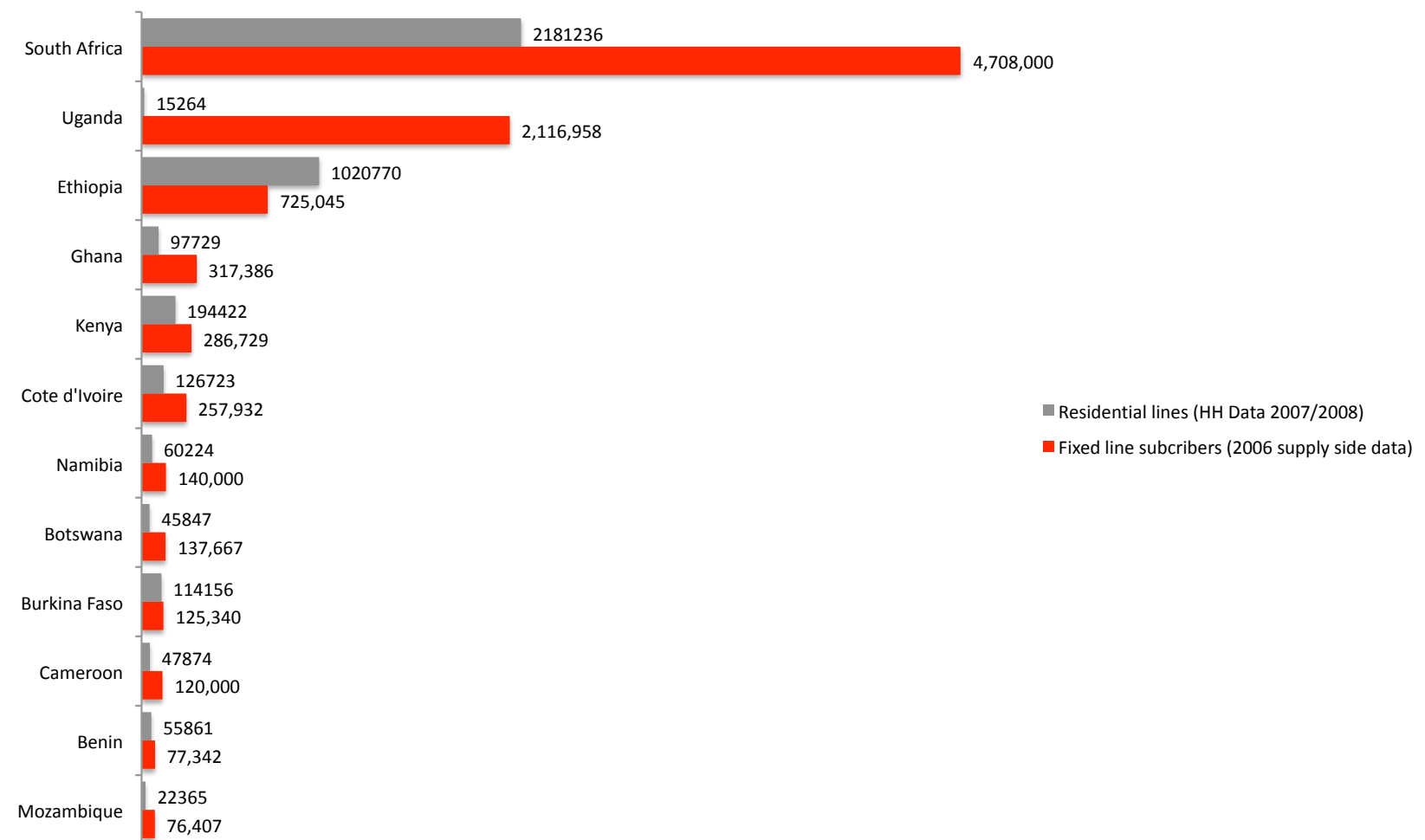


Comparative FDI: SA vs Nigeria

Telecom investment & GDP per capita

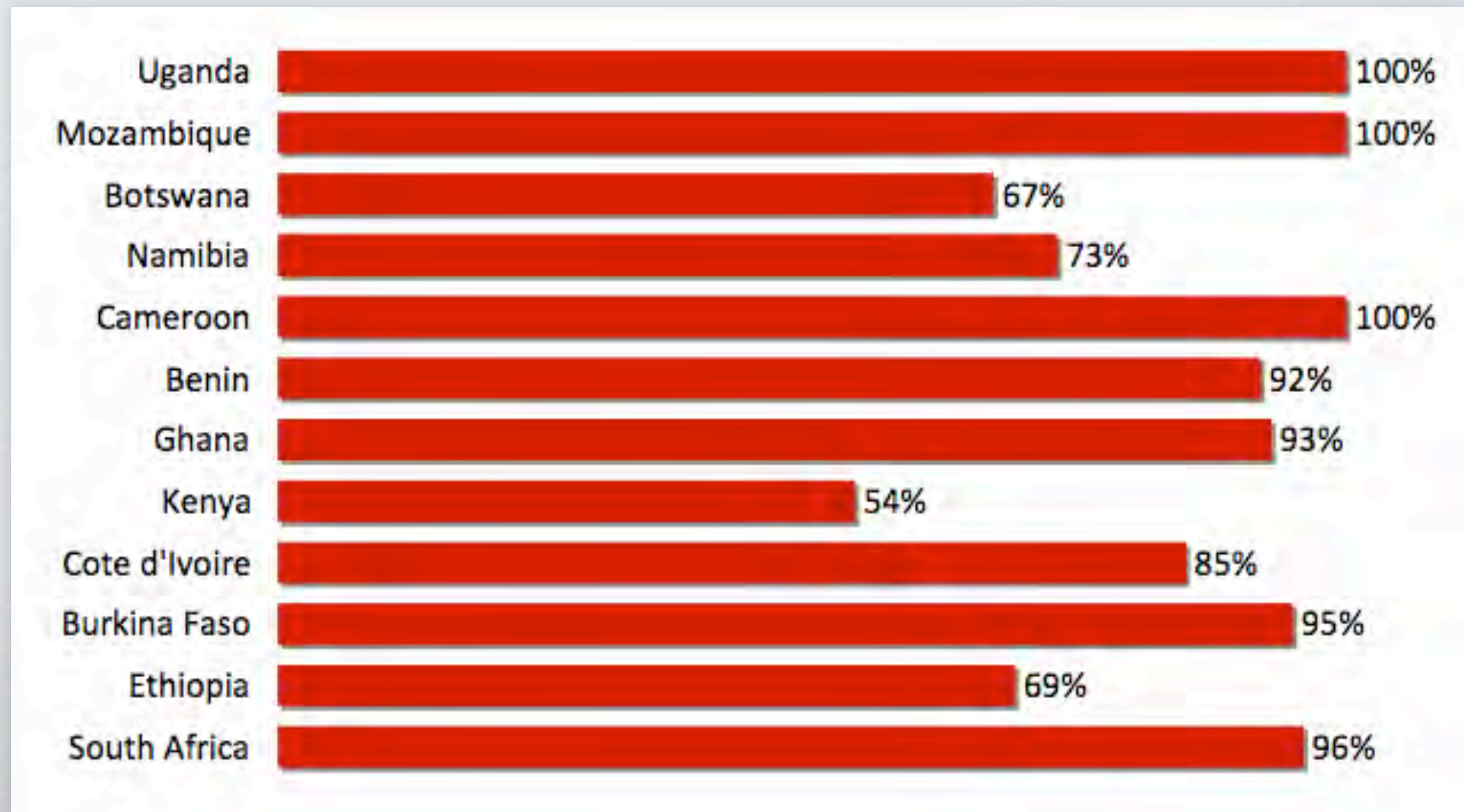


Fixed lines: residential vs supply side



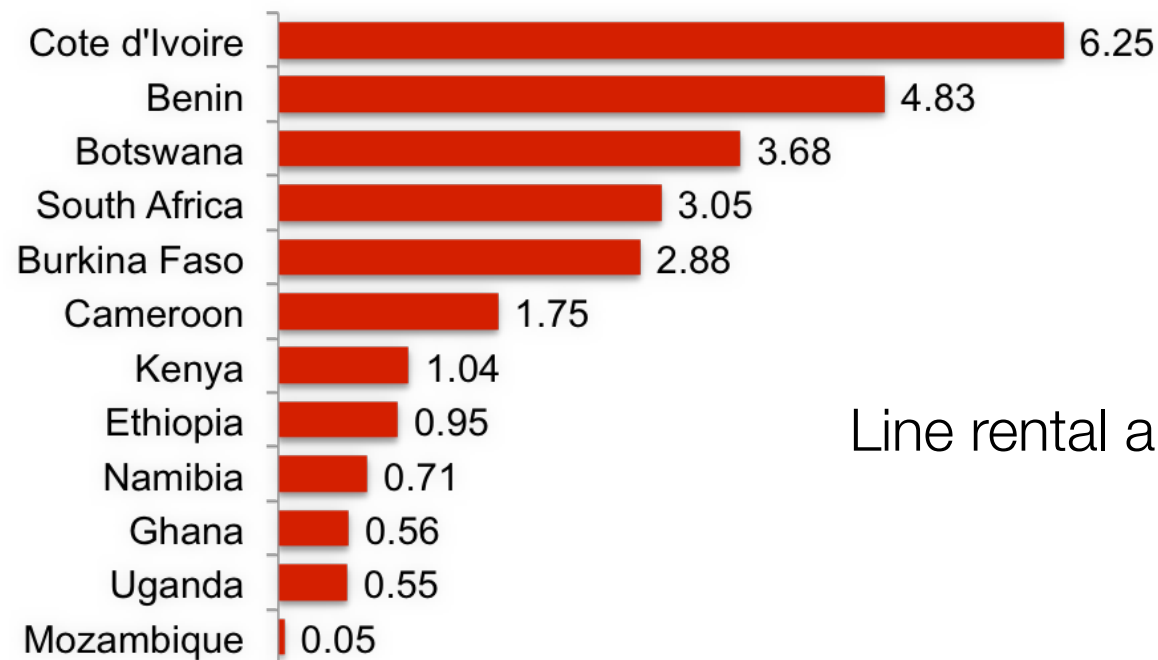


Urban share of residential fixed lines



Fixed line willingness to pay

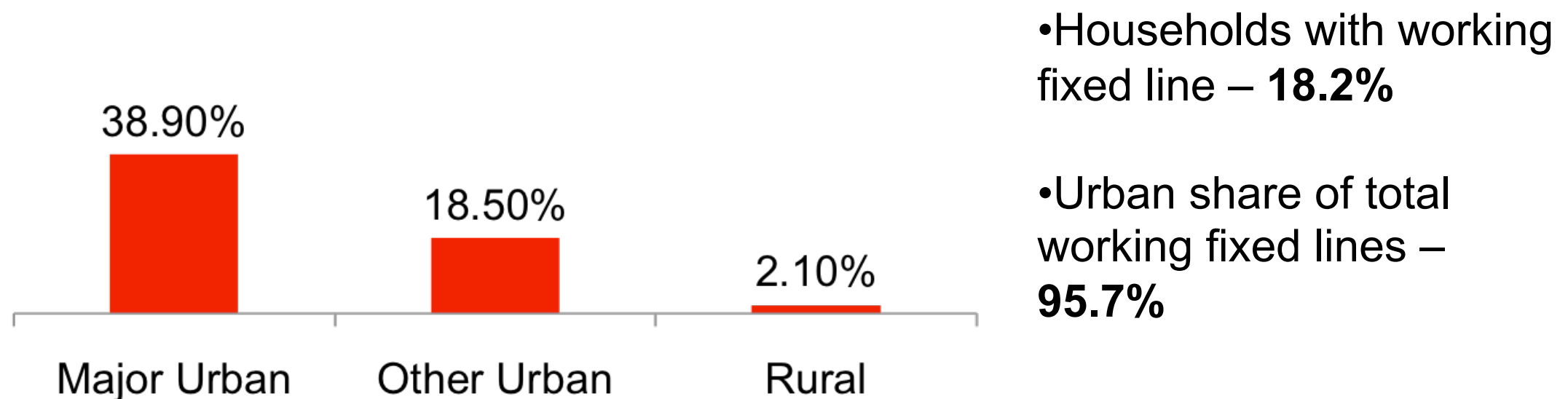
How much would you be willing and able to spend monthly on a fixed-line phone for calls and monthly subscription costs? US\$



Line rental alone \$8 p/m



Households in SA with a working fixed line



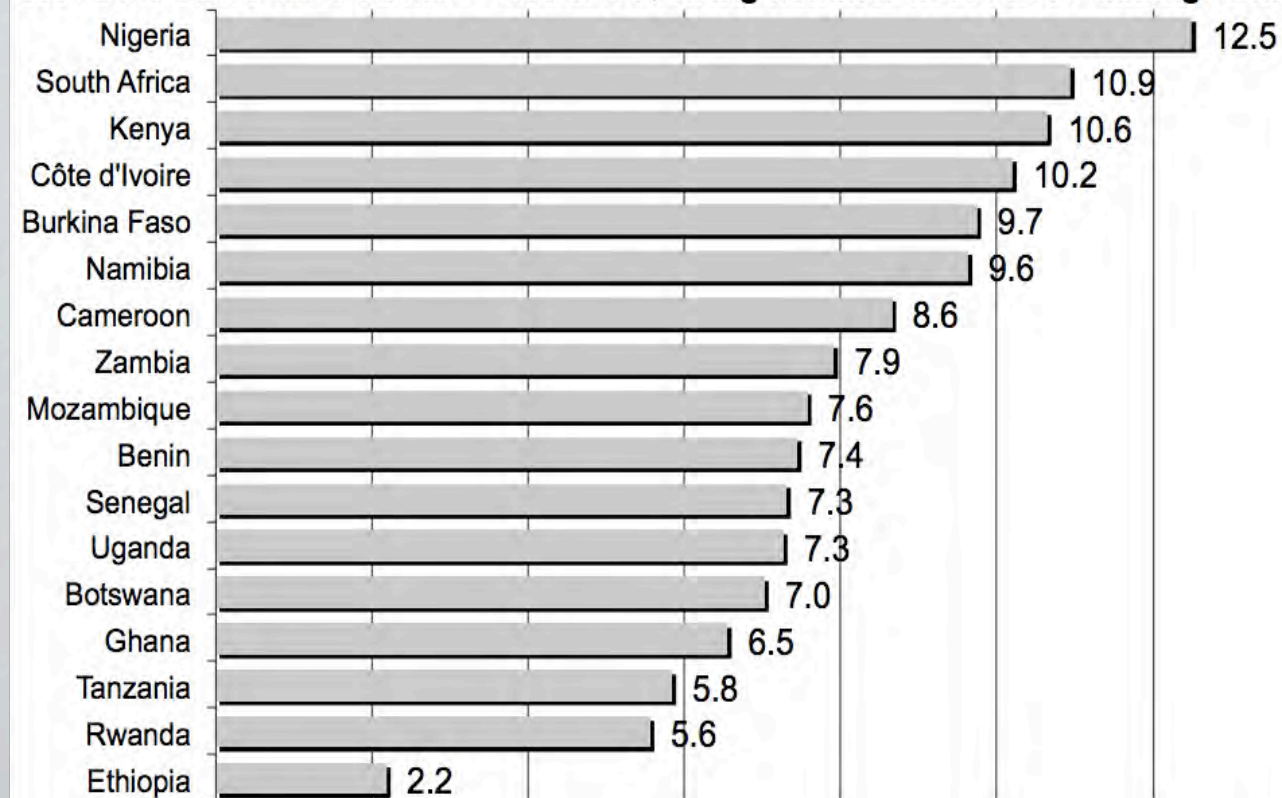
- Average monthly fixed line expenditure – **US\$ 31.31**

- Average monthly price a household without fixed-line is willing to pay for the service – **US\$ 3.05**

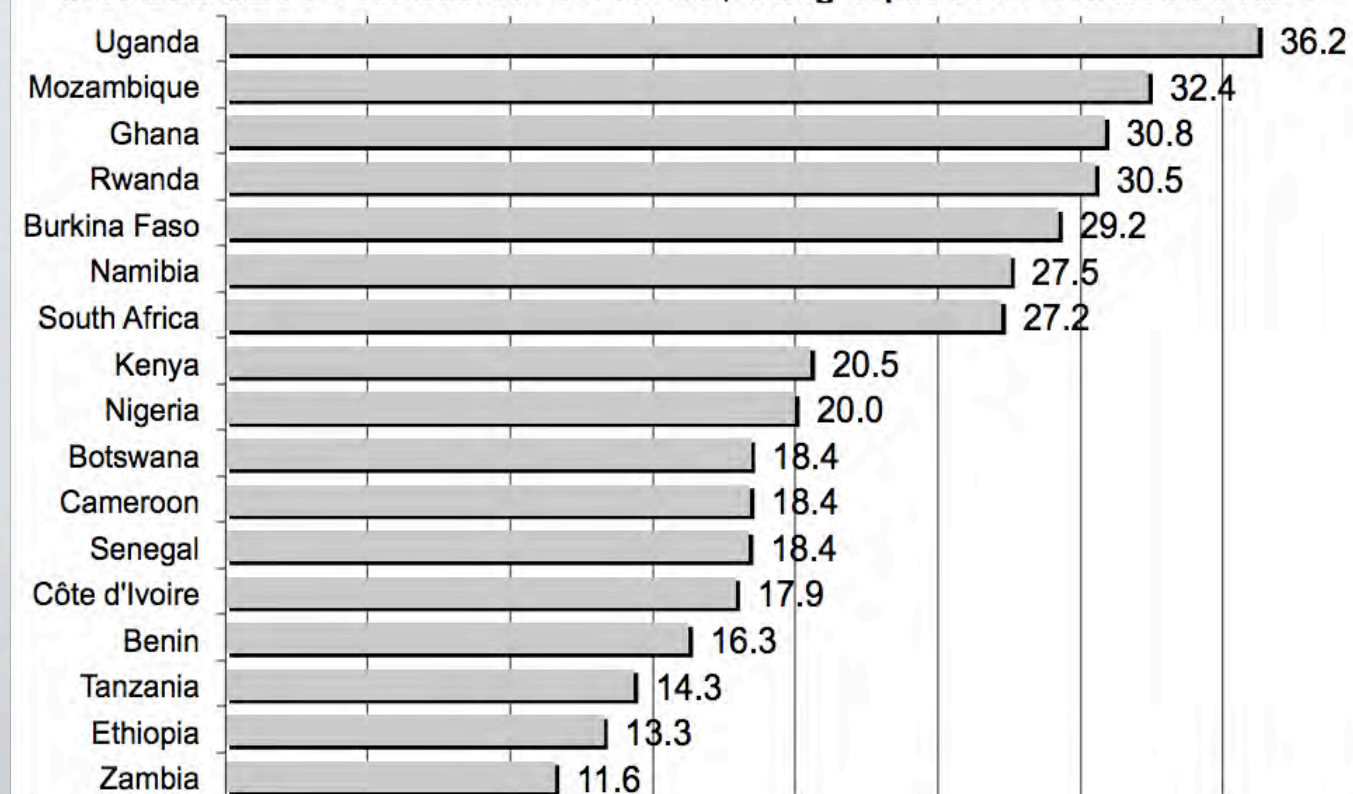


Supply side - mobile pricing

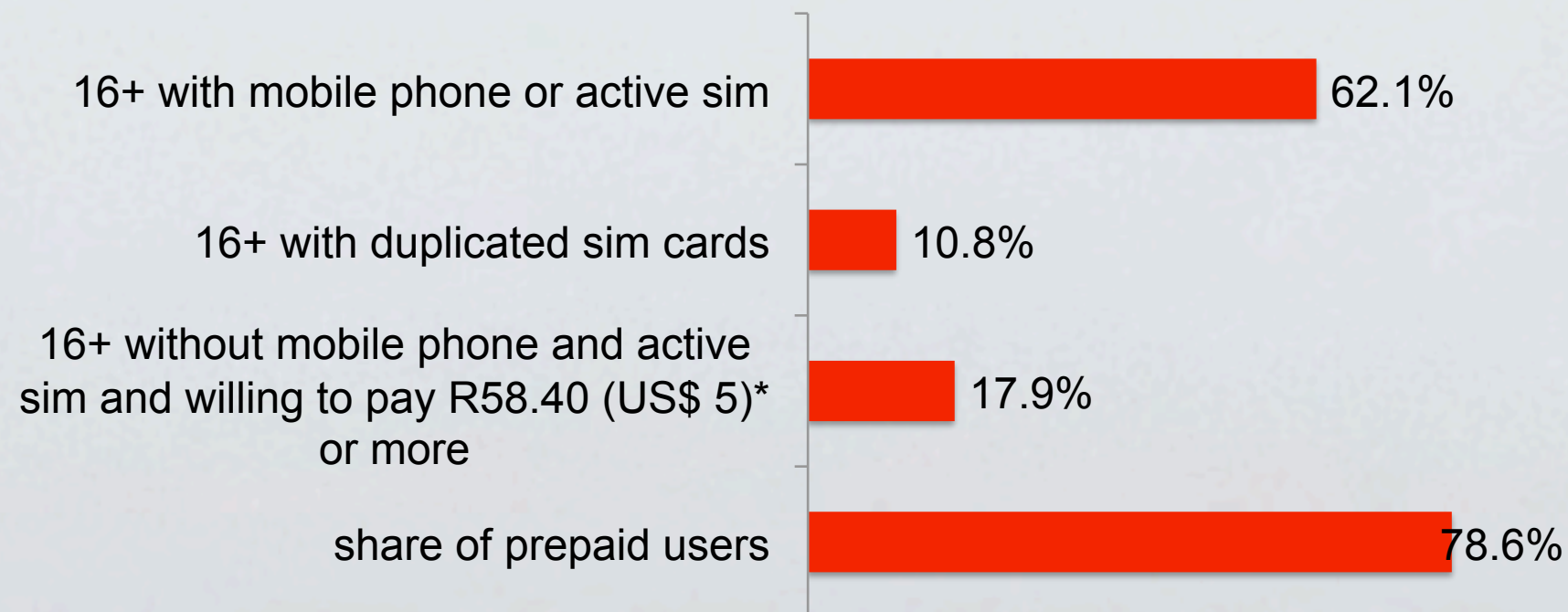
2006 Low OECD User Basket - cost in US\$ using nominal end of 2006 exchange rates



2006 Low OECD User Basket - cost in US\$ using implied PPP conversion rates



Mobile phone users in SA disaggregated

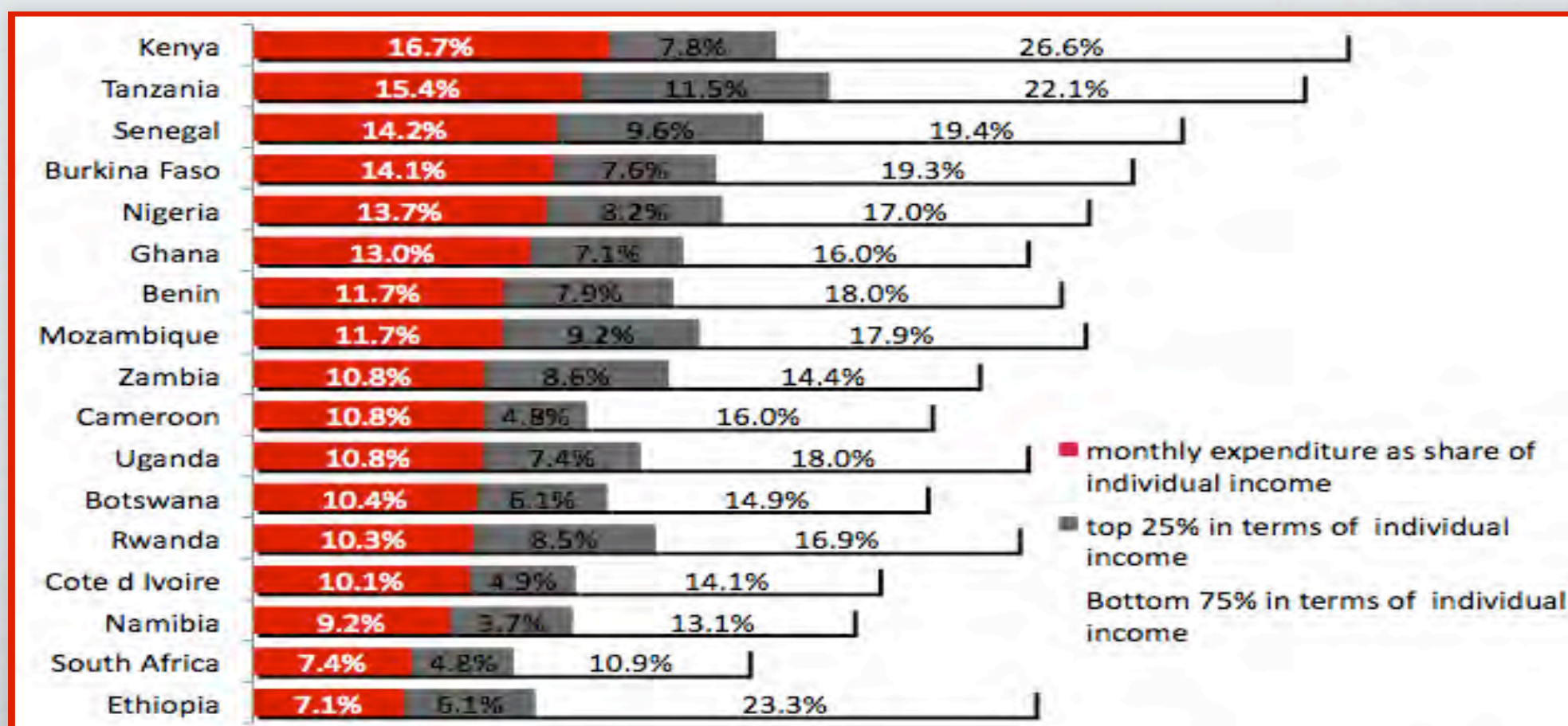


Average monthly WTP for mobile expenditure of non-users that would be interested in getting a mobile phone - R 46.70 (US\$ 4.40)*

* At Dec 2007 prices and exchange rates

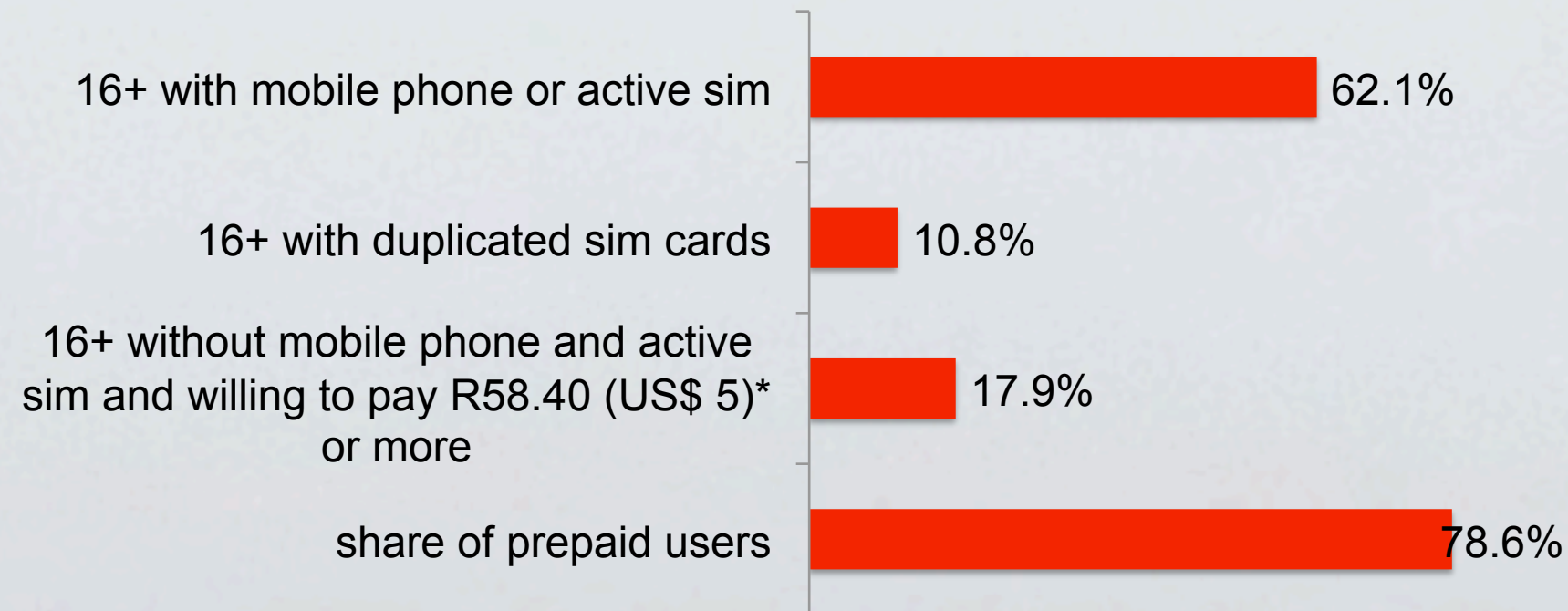


Expenditure on mobile





Mobile phone users



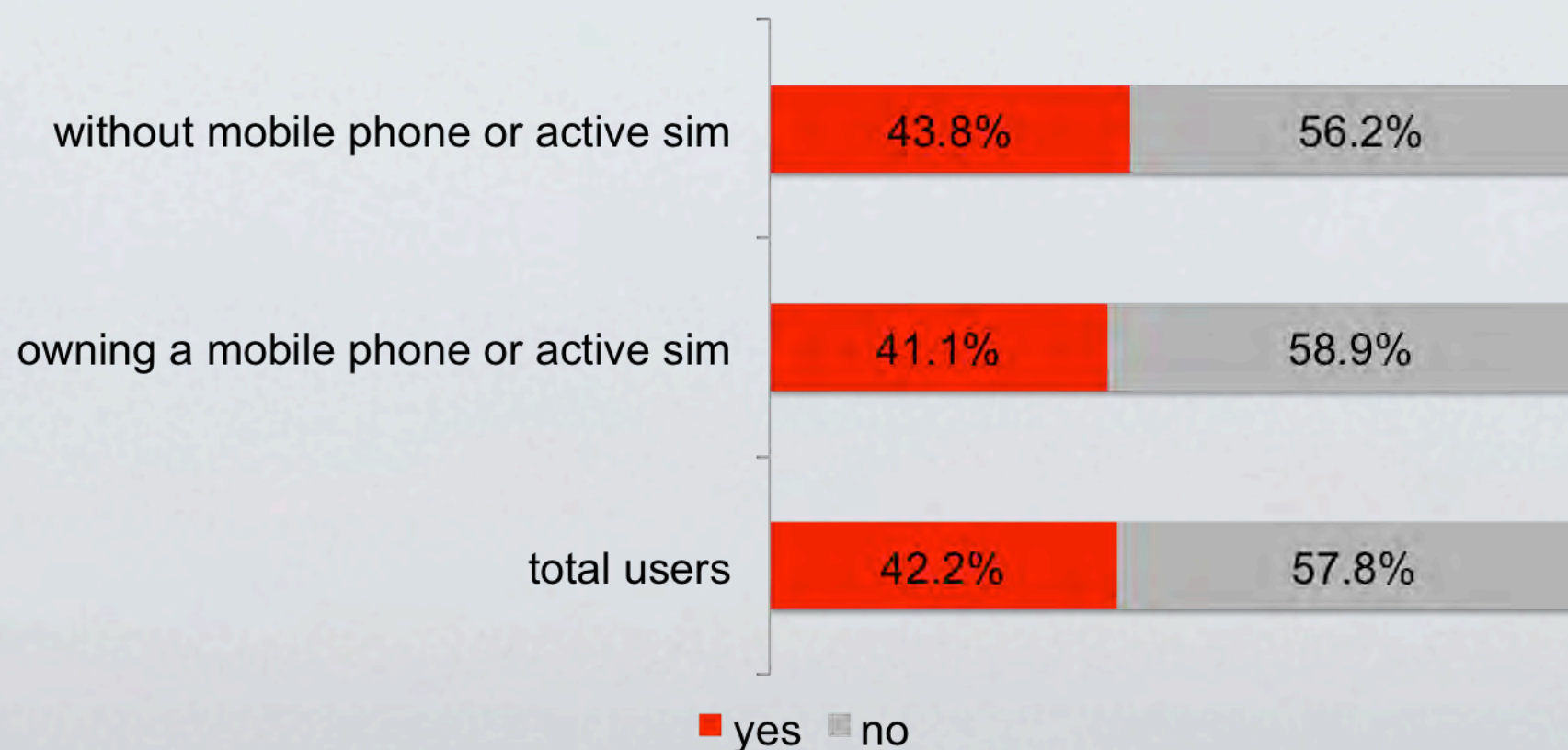
Average monthly WTP for mobile expenditure of non-users that would be interested in getting a mobile phone - R 46.70 (US\$ 4.40)*

* At Dec 2007 prices and exchange rates





Have you used a public phone in last three months?



Average monthly public phone expenditure – R 34.82 (US\$ 3.24)*

* Exchange rates at Dec 2007



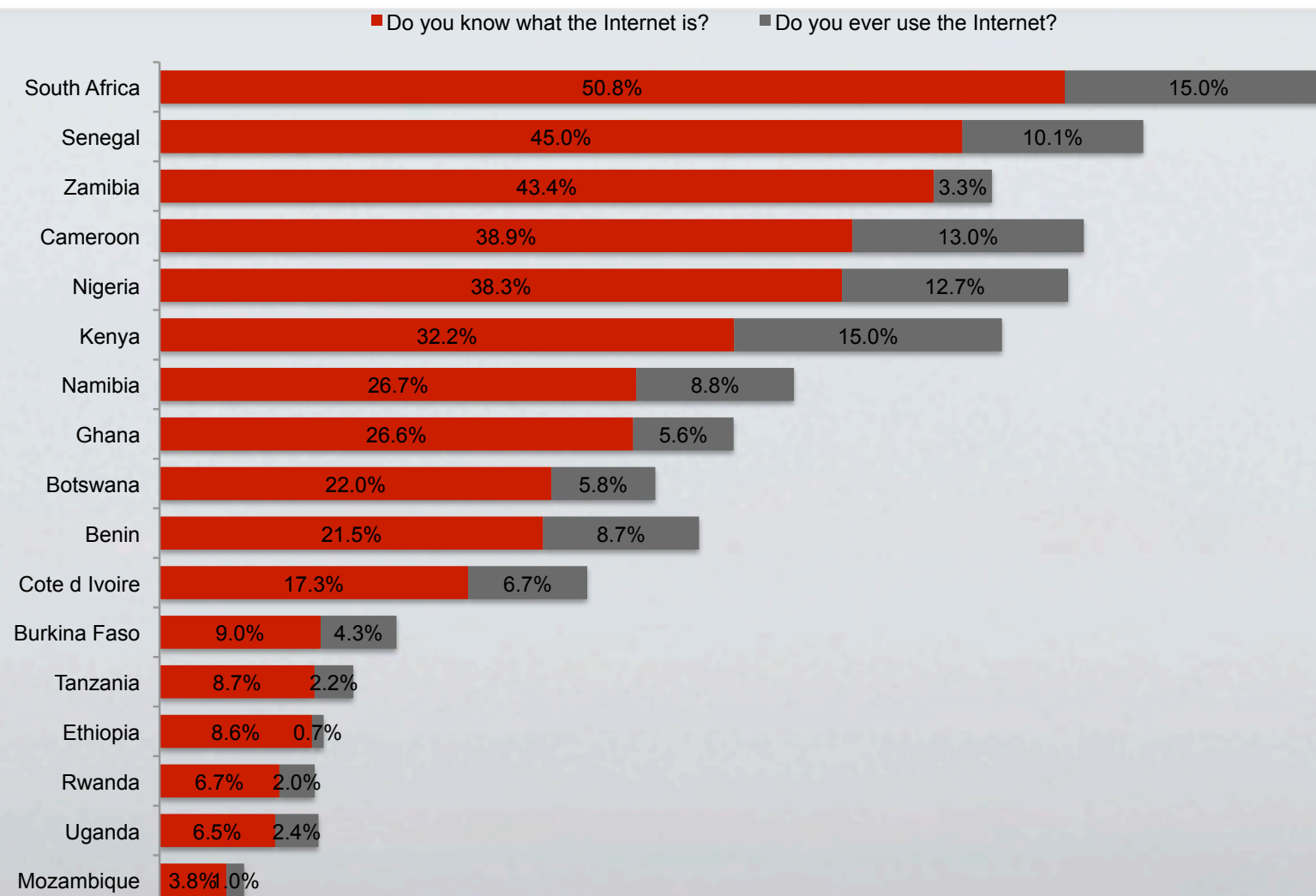


Mobile willingness to pay

	Average willingness and ability to pay for a mobile handset in US\$	Average expected cost of a mobile handset in US\$	New users at 20 US\$ for an handset	New users at 15 US\$ for an handset	New users at 10 US\$ for an handset
Benin	7.45	11.44	124,972	487,176	677,715
Botswana	19.14	27.38	119,014	196,496	228,203
Burkina Faso	9	12.84	428,593	1,243,958	1,453,007
Cameroon	15.34	22.16	868,037	1,732,300	1,869,861
Cote d Ivoire	29.7	30.06	3,057,420	3,539,351	3,914,283
Ethiopia	6.06	64.19	1,436,628	1,637,668	2,644,673
Ghana	14.02	23.15	1,283,271	1,469,652	1,841,837
Kenya	17.12	26.68	2,862,457	4,165,549	5,663,481
Mozambique	4	23.2	56,457	79,895	287,147
Namibia	24.64	25.12	162,992	192,395	232,584
Nigeria	5.65	12.57	356,907	1,004,573	2,527,884
Rwanda	3.69	9.34	Not available	Not available	Not available
Senegal	19.55	25.43	1,336,691	2,169,548	2,301,775
South Africa	19.25	32.41	2,652,827	3,354,797	4,094,783
Tanzania	10.89	17.3	1,422,927	2,102,510	3,272,065
Uganda	5.74	14.98	-	1,499	1,499

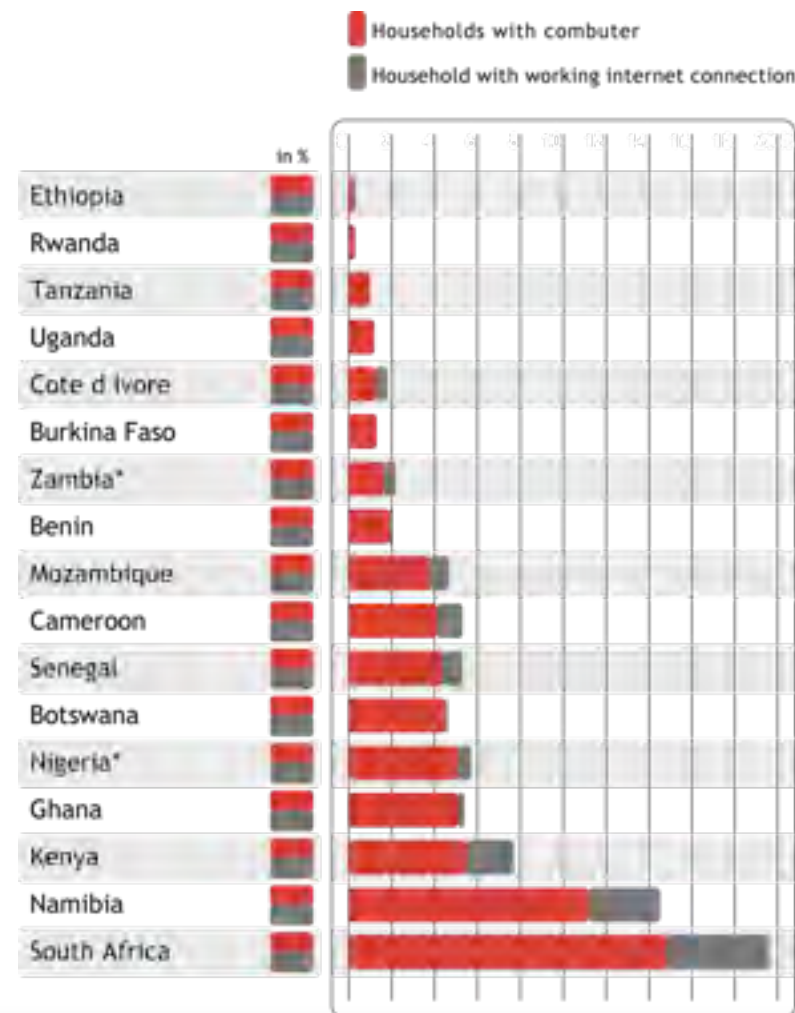


Internet usage



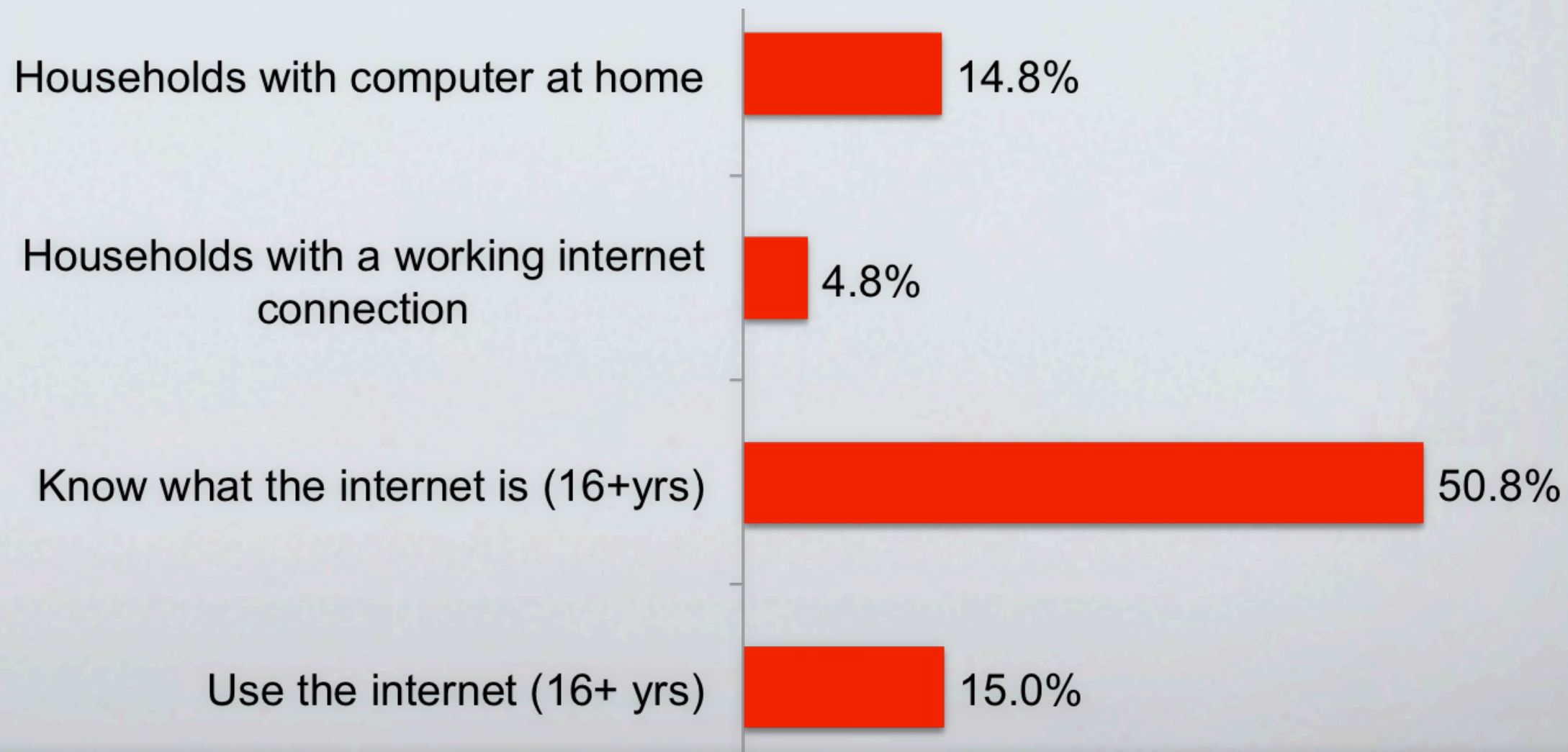


Computer and working internet

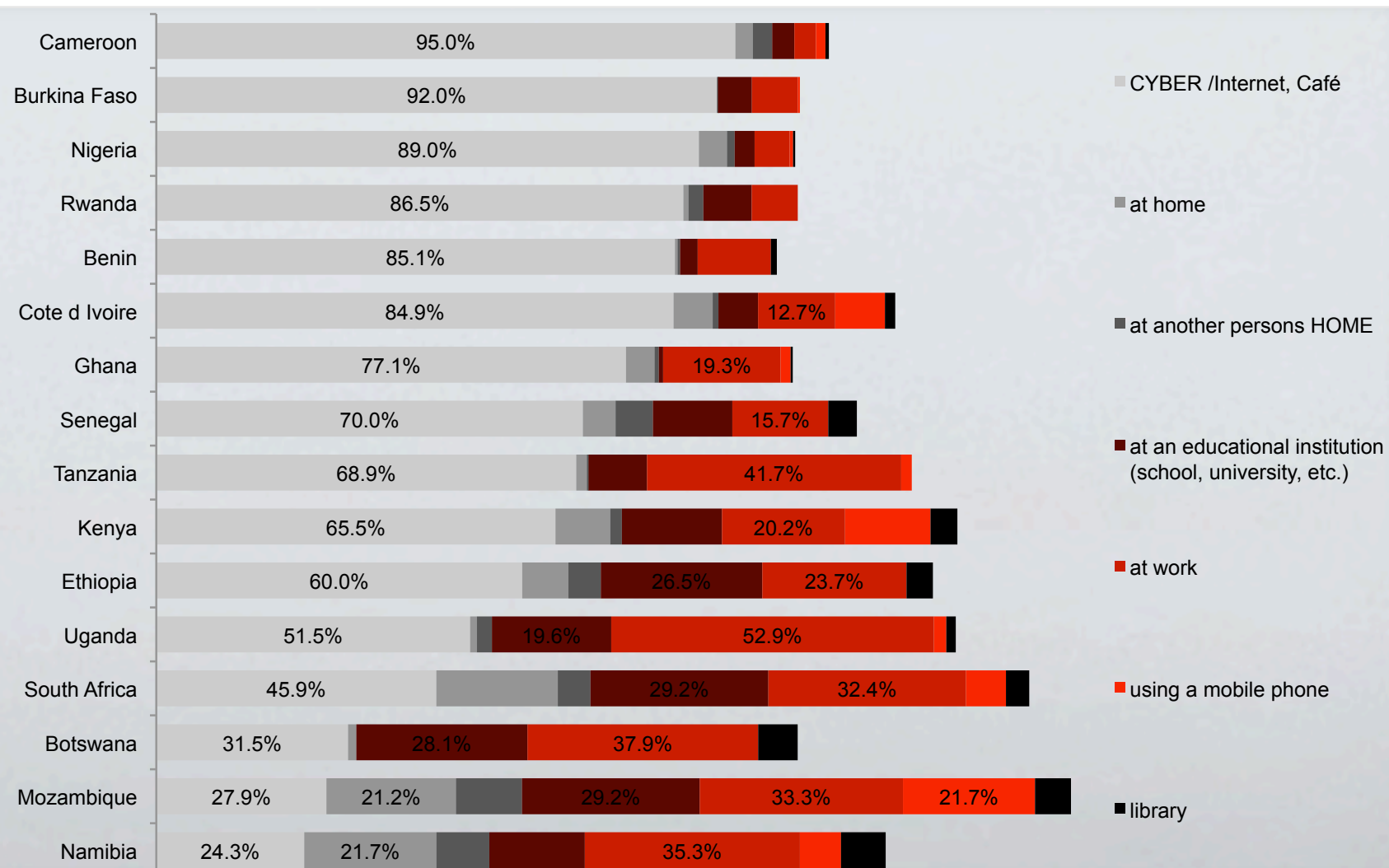




Internet access, usage and familiarity



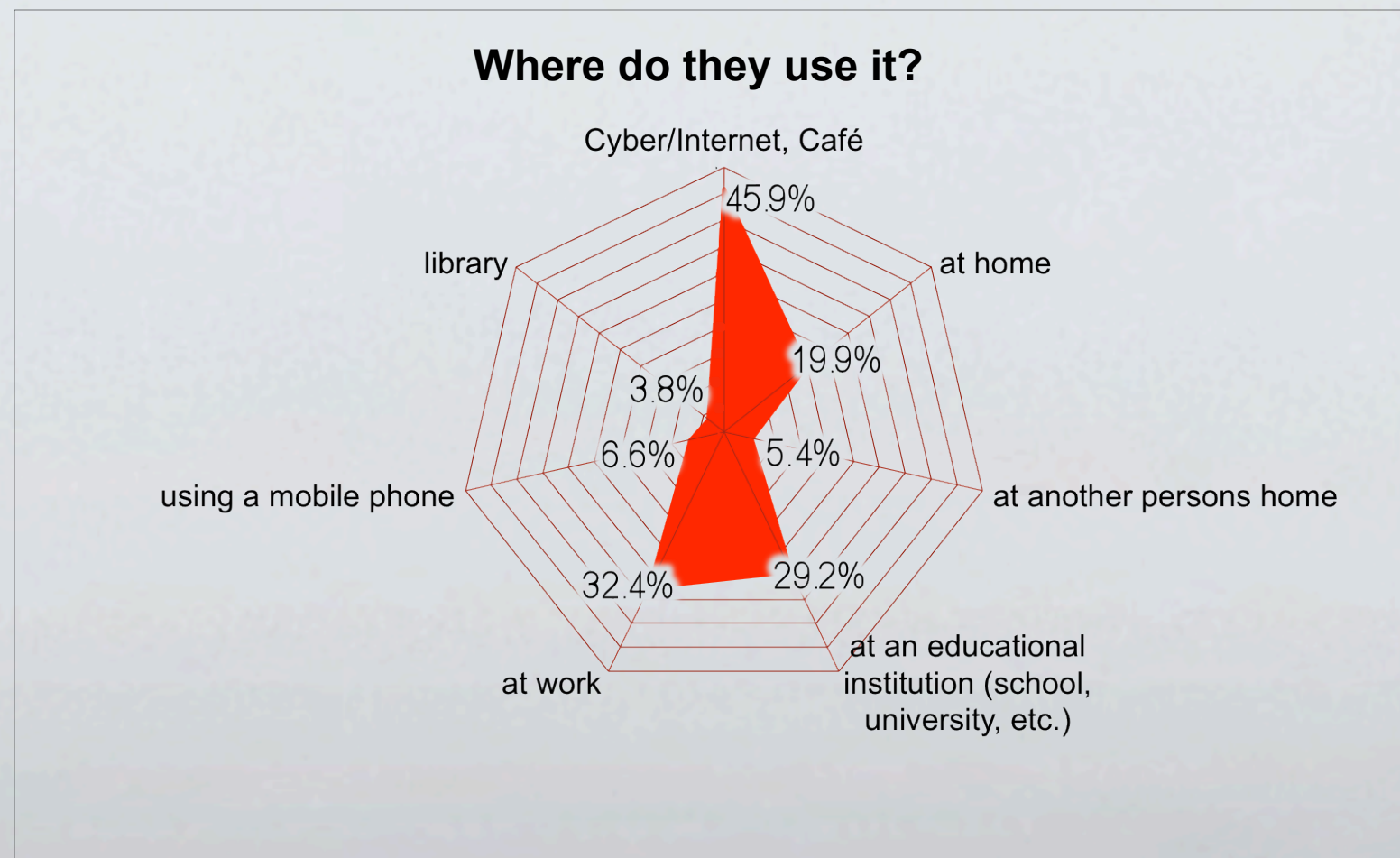
Accessing the Internet





Internet access - South Africa

50% know what the internet is, but only 5% use it





Market structure/conduct

- Despite horizontal/service neutral licensing regime, operators remain vertically integrated with same patterns of dominance
- Anti competitive incentive in market remain requiring constant adjustment by regulator
- Regulators largely ineffectual due to constraints on authority and absence of competencies.





Regulation

- Resource intensive access regulation
- Human capability and institutional capacity constraint
- Independence and accountability
- Information asymmetries





Policy outcomes

- Inefficient and expensive/high cost of services - sub-optimal use
- Lack of access to full range of service - > digital divide
- High input cost to business/ reduce growth/ employment opportunities
- Not globally competitive - BPO/2010





Conclusions & Recommendations

- Fixed lines access and usage charges in major obstacle to usage
 - Remedy: Reduce access charges even if increase access charges
- Mobile phone access and usage constrained by high costs
 - Remedy: Remove any additional levies and taxes on services and handsets below a certain level
- Pay-phones still widely used as part of multiple access and usage strategy of individuals
 - Introduce competition or regulate pay phone extension and prices for mobile and fixed networks to ensure access and extend to Internet provision





Arising policy issues

- Institutional arrangements and capacity?
- Economic growth and development? Critical mass.
- Mobile the future? Cost? Devices?
- International bandwidth costs? Funding of broadband - state backbones, protectionism/conflicts of interest? Broadband as public utility?
- Old assumptions about continent challenged -
 - Nigeria and Ghana overtaking South Africa in mobile users, Egypt & Morocco on ADSL
 - e-skills indicator for e-readiness tertiary/secondary education on the continent not primary education
 - mobile banking, lowest regulated termination charges, end or roaming charges.



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